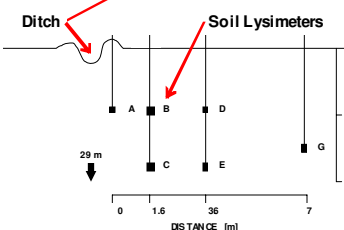
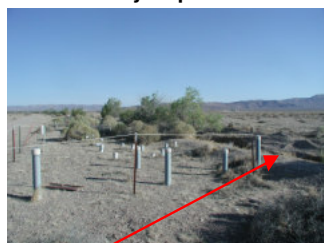


Determining Historical Exposure Assessment Through Integration of Measurements and Models

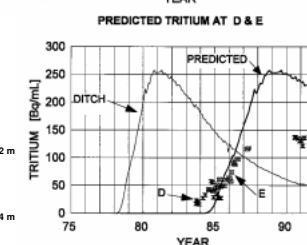
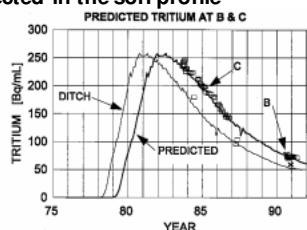
Author(s): James R. Hunt

Affiliation(s): University of California at Berkeley

Example 1: Tritiated water released into ditch at the Nevada Test Site over a 16 year period and detected in the soil profile

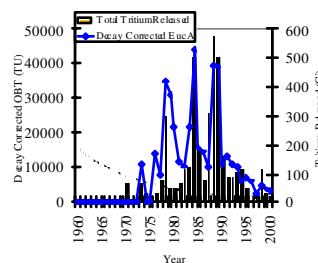


Accomplishment: Wetting front model is able to predict tritium profile and allow estimation of historical releases from measurements within the soil profile.



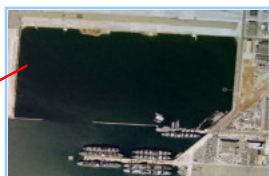
Example 2: Tritium incorporated into trees at the Lawrence Berkeley National Laboratory

Tritium labeling facility released tritiated water out the stack and tritium was taken up by nearby trees. Monitoring program only started in the 1970's.

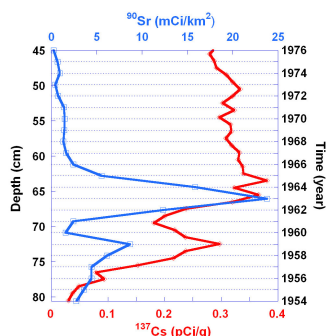


Accomplishment: Demonstrate that trees have a tritium record that agrees with monitoring program since 1970's and verified limited earlier releases.

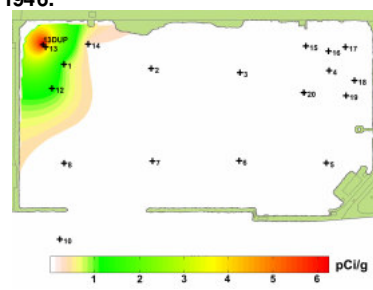
Example 3: Seaplane Lagoon at Alameda Naval Air Station, S. F. Bay with contaminated sediments



Sediment chronology from bomb pulse ^{137}Cs



Accomplishment: Estimate yearly surface sediment Radium-226 levels from luminescent paint waste, e.g. 1946:



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